

Sequence / Method: Unplanned works to prepare for and enable steel intake and installation

Alt 1 (ALTERATION 1)

- Sequence 1:** - Relocate incorrectly located (for level) original temporary works elements installed under previous Main Contract controlled works - Phase 1 works
- Drill and resin fix PFC's to piles - 1 x 16mm threaded rod to each pile, min 150 embedment -
 - Erect working platforms 1 & 2 as detailed and guard rails
 - Place Acrow props to PFC's as indicated and tie off to piles
 - Dismantle (single tie only at a time) each tie beam, magnetic drill and re-fix tie beam at level 1A including supply of, cutting and welding of fixing plates to vertical UC's and tie-beams,
- NOTE:** complete each single tie-beam replacement prior to commencing re-locating of next tie-beam

Alt 2: See Sheet 3 - General Arrangement

- Sequence 2:** Reprop, remove and replace propping to GFL steel sections, installed in Phase 1. Temporary works piles and temporary stanchions onto piles incorrectly placed under previous Main Contract controlled works - Phase 1 works
- Erect Access scaffolding / Tower
 - Magnetic drill into GFL steel section (203 UC 86) x 2
 - Fix 203 UC 53 cross member to existing beams, 16mm bolts x 4
 - Erect 2 no. Slimlite II props to cross member and fix to cross member with steel banding
 - Fix in place 4 no. raking struts to Slimlite props
 - Fix in place Access scaffolding
 - Dismantle and remove Temporary works steel bearing onto temporary stanchion and wall on Grid line 4
 - Make good aperture in wall
 - Demolish temporary works piles

Alt 3: See sheet 3 General Arrangement

Works necessitated due to installation details during previous Main Contract Controlled works

- Sequence 3:** Due to incorrect level set to level 1 Tie-Beams in previous contract, used for bearing points for needle beams to front elevations on Grid lines 2 & 3, this frame must be installed prior to progressing with SD Frame 2 in order to remove front elevation needle beams from required location for SD Frame 2 installation
- Prop needle beam bearing onto level 1 tie-beam (side) to allow installation of Frame 2 and secure

Sequence 4: Needle beams onto tie-beams - See sheet 3 for Delivery / installation sequence

- All deliveries via 15 metre reach Hi-Ab vehicle, Steel members delivered in sequence
- Sequence of delivery, See Sheet 3 - General Arrangement SD = Sequenced Delivery
- All lifts onto reception platform 1.
- Sections lifted off platform 1 by block and tackle on beam trolley and taken into initial position onto platform 2

- SD 1 - Frame 1, Frame to front elevation on grid line 3,
 - Take in Steel members as per Hi-Ab to Basement lift, members lowered to basement level
 - Move members to position for Frame 1 on rollers.
 - Frame 1, twin frame, assemble frame, including stanchions as individual frames and erect 1 at a time
 - Raise to position, using block and tackle suspended from needle beams, bolt frames, including spacers together
 - Drill and resin in holding down bolts and place non-shrink grout to base of stanchions
 - Reconstruct and dry-pack over frame and allow to cure
- See Sequence 1 for alteration of Tie-beam level 1

Steel arrangement shown here indicative only to show proposed works and delivery schedule

ALL CONSTRUCTION DETAILS FROM RTA DRAWINGS

DO NOT SCALE
NOT TO SCALE

FIG. 1 Elements enlarged/reduced for clarity

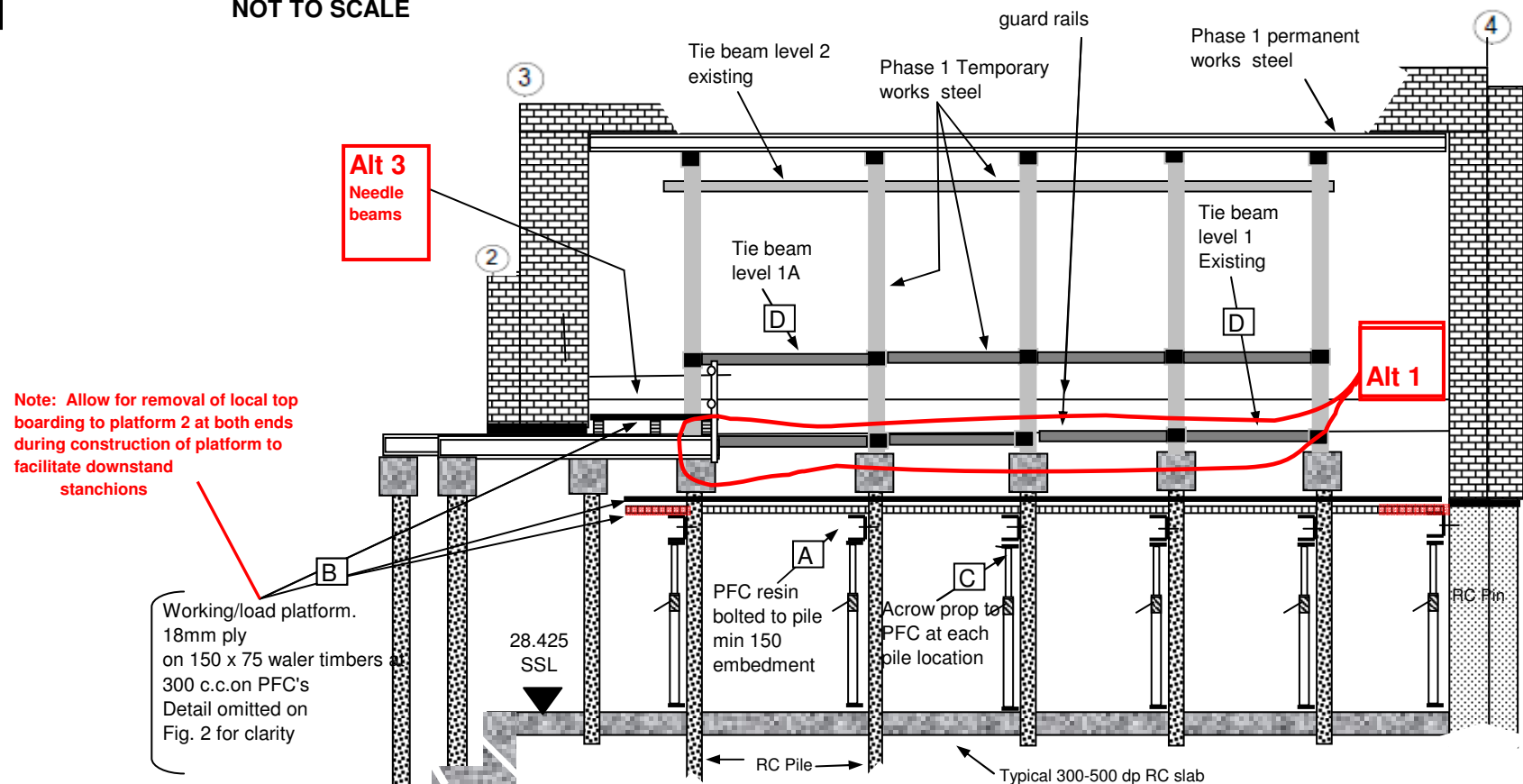
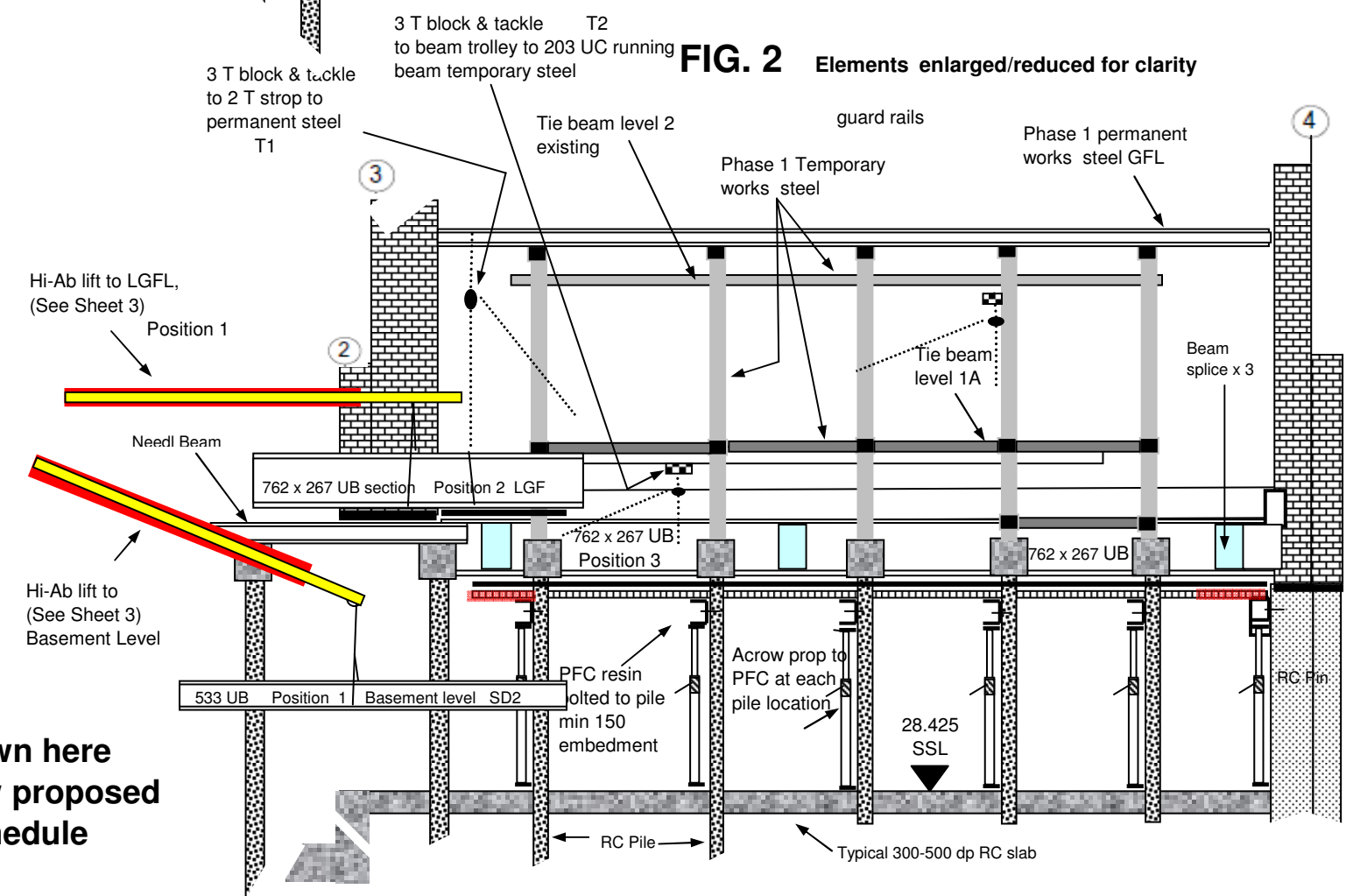


FIG. 2 Elements enlarged/reduced for clarity



Sequence 5: - See sheet 3 for Delivery / installation sequence

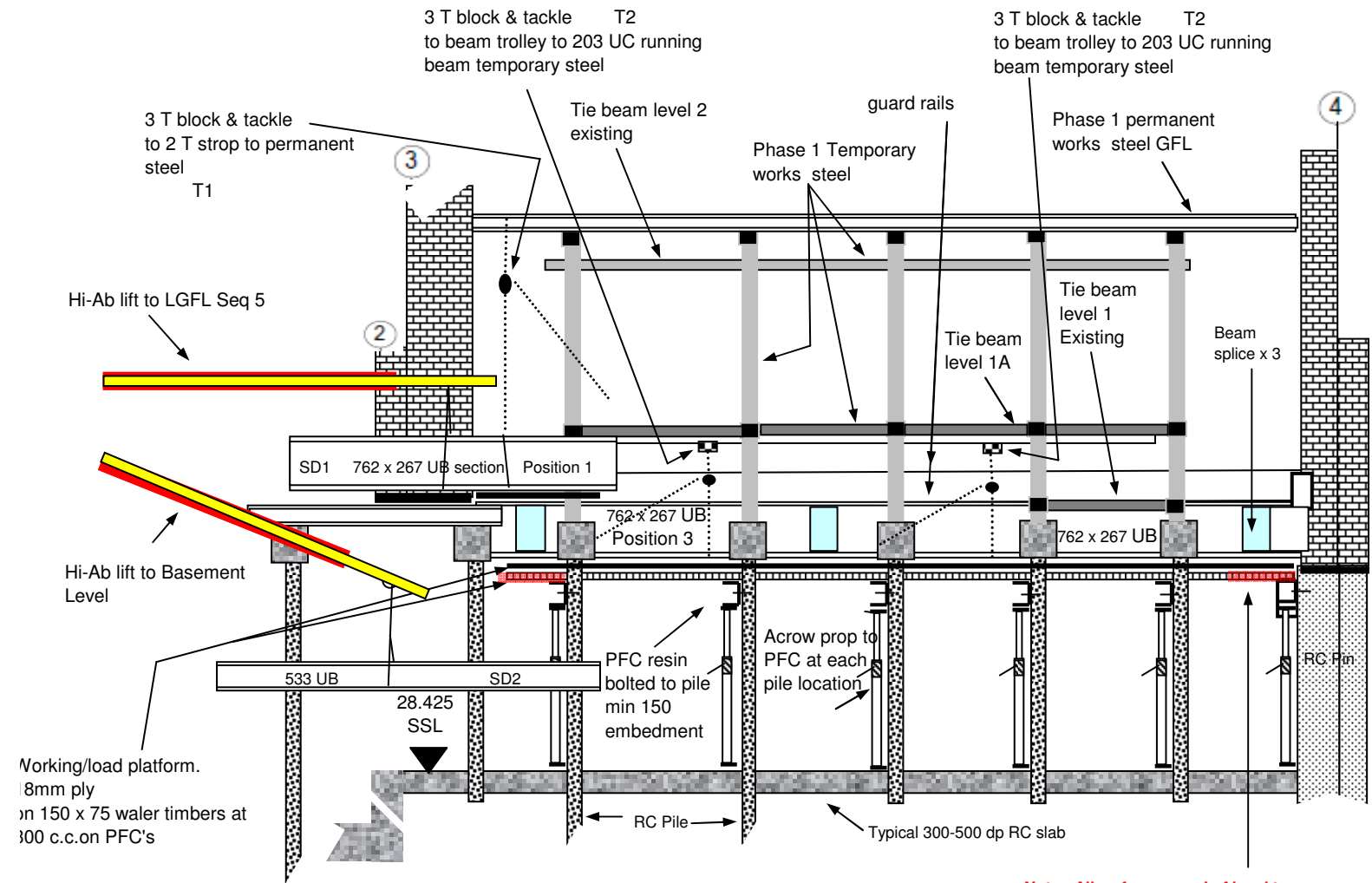
- i. All deliveries via 15 metre reach Hi-Ab vehicle, Steel members delivered in sequence
 - ii. Sequence of delivery, See Sheet 3 - General Arrangement SD = Sequenced Delivery
 - iii. All lifts onto reception platform 1 for Frame 2.
 - iv. Sections lifted off platform 1 by block and tackle on beam trolley and taken into initial position onto platform 2
1. SD 1 - Frame 2, Frame on grid lines B & C,
 2. Take in Steel members as per Hi-Ab to Working platforms 1 & 2, 2 no. members may be required to belowered to basement level - ends of 762 UB sections and later raised up to connect to main spliced beam
 3. Move members to position for Frame 2 by B&T and B&T on beam trolley.
 4. Frame 2, twin frame with upward and downward projecting welded stub column sections, assemble frame, including full stanchions as individual frames and erect 1 at a time, including tie-bolts and spacers, on working platform 2
This will involve removing parts of working platform 2 to allow stanchions to Basement level to be constructed
See note on sheet 1.
 5. Raise to position, using block and tackle suspended from permanent beams, bolt frames, including spacers together
 6. Drill and resin in holding down bolts and place non-shrink grout to base of stanchions at basement level
 7. Reconstruct and dry-pack around frame and allow to cure
See Sequence 1 for alteration of Tie-beam level 1

Sequence 6:

1. SD 2 ,
2. Take in Steel members as per Hi-Ab to Working platforms 1 & 2, 2 no. members may be required to belowered to basement level - ends of 762 UB sections and later raised up to connect to main spliced beam
3. Move members to position for Frame 2 by B&T and B&T on beam trolley.
4. Frame 2, twin frame with upward and downward projecting welded stub column sections, assemble frame, including full stanchions as individual frames and erect 1 at a time, including tie-bolts and spacers, on working platform 2
This will involve removing parts of working platform 2 to allow stanchions to Basement level to be constructed
See note on sheet 1.
5. Raise to position, using block and tackle suspended from permanent beams, bolt frames, including spacers together
6. Drill and resin in holding down bolts and place non-shrink grout to base of stanchions at basement level
7. Reconstruct and dry-pack around frame and allow to cure
See Sequence 1 for alteration of Tie-beam level 1

SD: 3

- A. Beams lifted in by Hi-Ab onto basement floor level
- B. Beam clamps (2T cap.) will be fixed to existing GFL beams and beams raised to LGFL, the beams will be fixed at one end and temporarily propped, to allow splice connections
- C. Erect frames 3 & 4 as per Frame 1.
- D. Raise intermediate beams as per item B above and bolt into position

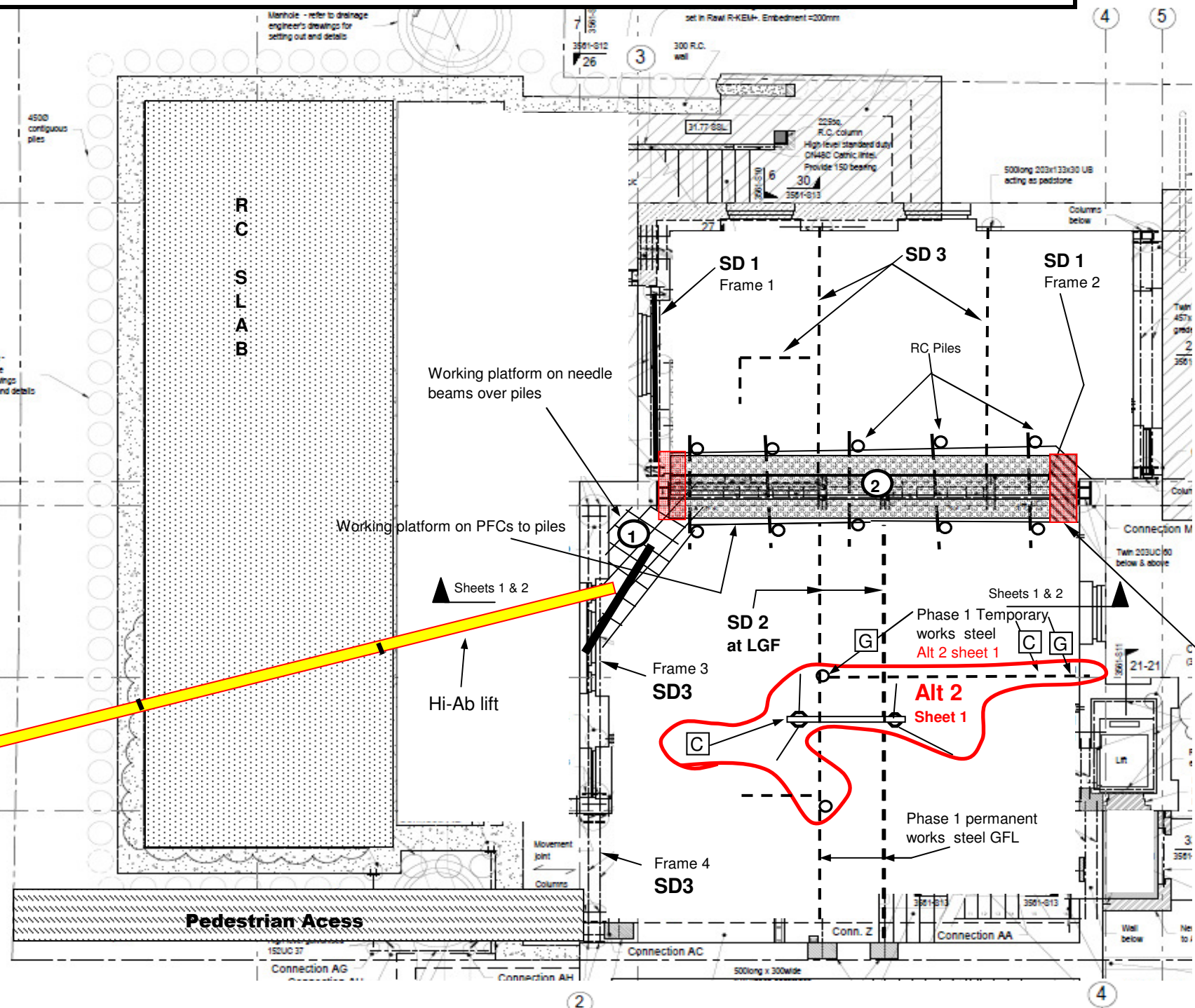


Note: Allow for removal of local top boarding to platform 2 at both ends during construction of platform to facilitate downstand stanchions

Steel arrangement shown here indicative only to show proposed works and delivery schedule

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 SOME ITEMS HAVE BEEN OMITTED FOR AND/OR SCALED UP-DOWN FOR CLARITY



Sequence 4: Intake and installation of steel members

- i. All deliveries via 15 metre reach Hi-Ab vehicle, Steel members delivered in sequence
- ii. Sequence of delivery, See Sheet 3 - General Arrangement
SD = Sequenced Delivery
- iii. All lifts for Frame 2 onto reception platform 1 and onto platform 2
- iv. Sections lifted off platform 1 by block and tackle on beam trolley and taken into initial storage positions onto platform 2, prior to assembly

SD1: - Frame 1, to Grid line 3, including Cols, landed at Basement level
 - Frame 2, to Grid lines B & C landed onto platform 1, including connection cols from GFL
 - Cols to twin beams on Grid line 5 - Cinema, 4 no.

SD2: - Sections spanning from 12/13 wall to Frame 2, including cols from GFL and to basement,

SD3: - Sections spanning from Grid line A to Frame 2, including plant room mezzanine
 Frames 3 & 4 on Grid line 2 and steel to Main Steel spanning beam between party wall (12/13) and Frame 2,

Note: Allow for removal of local top boarding to platform at both ends during construction of platform to facilitate downstand stanchions - See Sheets 1 & 2 also

Self offloading lorry with 15mtr reach Hi-Ab crane. 1.5 T capacity (SWL) at 15 mtr

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